

## REMARKS

### *The Rejections and Objections*

In the Office Action of September 8, 2002, the Examiner rejected all of claims 39-45, 52-54, and 58-73.

Claims 65-73 were rejected under 35 U.S.C. § 251 for improper recapture of subject matter surrendered during prosecution of U.S. Patent No. 5,670,007 ("the original '007 patent"), the patent underlying this reissue application.

All of claims 39-45, 52-54, and 58-73 were rejected under 35 U.S.C. § 103(a) as being obvious in view of certain prior art references including Japanese Patent Publication No. 6-64076 ("Japan '076"). Claims 39-45 and 52-54 were rejected in view of Japan '076, a definition for "matting" in *Webster's New Riverside University Dictionary*, and any of Japanese Patent Publication No. 4-231545, PCT Publication WO 91/09733, or French Patent No. 2429100. Claims 58-64 were rejected in view of the references listed above and Japanese Patent Publication No. 63-242984. Claims 65-73 were rejected in view of EP 631,015, EP 623,714, and the references applied in rejecting claim 39.

Claims 39-45, 52-54, and 58-64 were rejected for obviousness-type double patenting in view of claims 1, 3, and 11 of U.S. Patent No. 6,205,727 ("the '727 patent") and additional references.

The Examiner objected to the application under 37 C.F.R. § 1.172(a) on the ground that the application lacked written consent of all assignees owning an interest in the underlying patent and that ownership has not been established. The Examiner also objected to the application on the basis that the original patent, or a statement as to loss or inaccessibility thereof, has not been received.

### ***The Amendment and Recapture Rejections***

This amendment revises prior-pending claim 65 so that it corresponds with previously canceled claim 46 and with claim 8 of the original '007 patent. The specific changes made to claim 65 are shown below by striking through deleted material and underlining added material:

65. (Amended) A The process for producing a reinforced slab of stone material, comprising the steps of:
- ~~\_\_\_\_\_~~ a. ~~providing a slab of stone material having a substantially smooth rear face free of grooves or recesses;~~
  - ~~\_\_\_\_\_~~ b. ~~forming~~ according to claim 39, wherein grooves or recesses are formed on the said rear face of the slab;
  - ~~\_\_\_\_\_~~ c. ~~providing a first reinforcing layer of non-twisted linear reinforcing elements coated with a resin, the percentage of resin to non-twisted linear reinforcing elements in the first layer being at most 50:50 by weight;~~
  - ~~\_\_\_\_\_~~ d. ~~providing a second reinforcing layer of linear reinforcing elements;~~
  - ~~\_\_\_\_\_~~ e. ~~applying the first and second reinforcing layers to the rear face of the slab such that the second layer is between the first layer and the rear face of the slab and the~~ said linear reinforcing elements of the second reinforcing layer are disposed housed in the grooves or recesses; and
  - ~~\_\_\_\_\_~~ f. ~~hardening the resin.~~

This amendment has been made to obviate the recapture rejections of claims 65-73.

Applicant had previously presented claim 46, which was identical to claim 8 of the original '007

patent. In the Office Action of November 25, 2002 (Paper No. 25), the Examiner suggested that claim 46 and other claims reciting grooves or recesses be set forth in independent form. In the amendment mailed May 27, 2003, applicant presented new independent claim 65 as an attempt to recast canceled claim 46 in independent form and new claims 66-73 depending therefrom. These claims have now been rejected for improper recapture. The undersigned would appreciate any specific suggestions the Examiner might have regarding how to fashion an independent claim from original claim 8. For now, however, applicant has returned claim 65 to a form precisely the same as original claim 8 and submits that, because of the resulting identity of subject matter between the originally issued claim 8 and amended claim 65, the recapture rejection should be withdrawn.

#### ***Prior Art Rejections***

Applicant respectfully traverses the section 103(a) rejections set forth in the September 8 Office Action. All of the claims pending upon entry of this amendment recite a method in which one or more layers of **non-twisted** linear reinforcing elements coated with resin are applied to the rear face of a stone slab. Applicant submits that none of the prior art references applied by the Examiner discloses this feature of reinforcing the slab with **non-twisted** linear reinforcing elements. The Examiner states that he interprets Japan '076 as disclosing that layer 104 consists of non-twisted reinforcing elements. Applicant does not see any teaching in Japan '076 that supports that interpretation.

### ***Double-Patenting Rejections***

Applicant continues to traverse the rejections of claims under the judicially created doctrine of obviousness-type double patenting with respect to claims 1, 3, and 11 of the '727 patent.

The basis for this doctrine is set forth in the MPEP: "A rejection based on nonstatutory double patenting is based on a judicially created doctrine grounded in public policy so as to prevent the unjustified or improper *timewise* extension of the right to exclude granted by a patent." MPEP § 804.II.B. (emphasis added). This doctrine is not applicable to the current application, as no unjustified or improper temporal extension of applicant's patent rights can result from the issuance of a reissue patent from this application. As pointed out previously by applicant, the '727 patent issued from an application having an effective filing date in 1997, over eighteen months *after* the filing date of the application underlying the original '007 patent and this reissue application. Accordingly, any claims issuing from this application would be subject to expiration well before the claims of the '727 patent.

### ***Objections***

Applicant shall address the Examiner's objections regarding the assignee's consent and interest and shall surrender the original '007 patent or provide a statement as to loss or inaccessibility thereof upon the Examiner's indication of allowable subject matter.

\* \* \*

In view of the foregoing, applicant respectfully requests withdrawal of the rejections and issuance of a Notice of Allowance for this application.

Applicant has petitioned for a three-month extension of time under 37 C.F.R. § 1.136 and has submitted a check in payment of the fee for the extension fee. If there are any other fees due

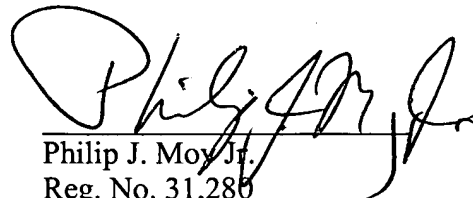
in connection with the filing of this response, please charge those fees to Deposit Account No.

06-0308.

Respectfully submitted,

Date: March 8, 2004

By:



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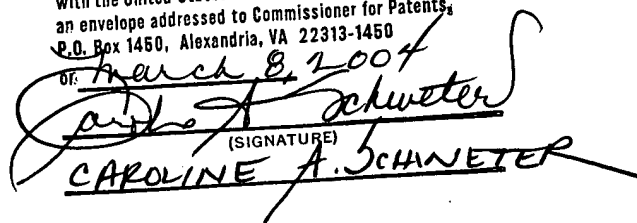
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Enclosure: Appendix A (Status of Claims and Support for Claim Changes)

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of:

March 8, 2004



(SIGNATURE)

CAROLINE A. SCHWETER

## APPENDIX A

### Status of Claims and Support for Claim Changes

A. *Original claims 1-20:* Canceled

B. *Claims 21-38:* Canceled

C. *Claims 39-45:* Pending as originally presented.

39. A process for producing reinforced slabs of products made of stone material, having a reinforcement which includes a hardened resin combined with a rear face of the slab, comprising

providing a slab of stone material having a rear substantially smooth face free of grooves or recess;

providing non-twisted linear reinforcing elements;

coating the non-twisted linear reinforcing elements with a coating of a resin to form a reinforcement having a percentage ratio by weight of resin to the non-twisted linear reinforcing elements of at most 50:50;

inserting a reinforcing layer between the coated non-twisted linear reinforcing elements and the rear face of the slab of stone material; and

hardening of the resin.

40. The process according to claim 39, wherein said non-twisted linear elements consist of strands of glass.

41. The process according to claim 40, wherein said glass strands are in the form of a matting.

42. The process according to claim 41, wherein the percentage weight ratio of the resin to the glass-strand matting is 33:66.

43. The process according to claim 39, wherein said slabs of stone material have a thickness no greater than 10 mm.

44. The process according to claim 43, wherein said slabs of stone material have a thickness between 6 to 8 mm.

45. The process according to claim 39, wherein the linear reinforcing elements are made of metal, and the metal is steel.

**D. Claims 46-51: Canceled.**

**E. Claims 52-54: Pending as originally presented**

52. The process according to claim 39, wherein the linear reinforcing elements include the glass strands and resin having a ratio of 55:45 of the glass strands to the resin.

53. The process according to claim 39, wherein said slabs of stone material have a thickness between 6 to 8 mm.

54. The process according to claim 53, wherein hardening of the resin is performed by the step selected from the group consisting of adding a catalyst to the resin, application of heat to the resin, or combination of the addition of a catalyst and heat.

**F. Claims 55-57:** Canceled

**G. Claims 58-64:** Pending as originally presented

58. The process according to claim 39, including applying two mats of non-twisted glass strands impregnated with 33% by weight of an epoxy resin, to provide for a linear expansion coefficient of the mat and resin combination between 15 and  $30 \times 10^{-6}$  per °C.

59. The process according to claim 39, wherein:  
said step of providing non-twisted linear reinforcing elements includes  
providing a first mat of non-twisted glass strands; and  
said step of inserting a reinforcing layer includes providing a second mat  
of non-twisted glass strands between the first mat of non-twisted glass strands and the rear face  
of the slab of stone material.

60. The process according to claim 59, wherein the second mat of glass strands is  
coated with a resin.



61. A process for producing a reinforced slab of stone material, comprising the steps of:
- a. providing a slab of stone material having a rear face substantially free of grooves or recesses;
  - b. providing a first layer of non-twisted linear reinforcing elements coated with a resin, the percentage of resin to non-twisted linear reinforcing elements in the first layer being at most 50:50 by weight;
  - c. providing a second layer of non-twisted linear reinforcing elements coated with a resin, the percentage of resin to non-twisted linear reinforcing elements in the second layer being at most 50:50 by weight;
  - d. applying the first and second layers of non-twisted linear reinforcing elements to the rear face of the slab such that the second layer is between the first layer and the rear face of the slab; and
  - e. hardening the resin.
62. The process of claim 61, wherein the non-twisted linear reinforcing elements comprise non-twisted glass strands.
63. The process of claim 61, wherein the non-twisted linear reinforcing elements comprise non-twisted carbon fibers.
64. The process of claim 61, wherein the resin is epoxy resin.

**H. Claim 65:** Currently amended. Supported by claim 8 of original patent.

65. The process according to claim 39, wherein grooves or recesses are formed on said rear face of the slab and said linear reinforcing elements are housed in the grooves or recesses.

**I. Claim 66-73:** Pending as originally presented.

66. The process according to claim 65, wherein the grooves or recesses form a grid.

67. The process according to claim 65, wherein the linear reinforcing elements of the second reinforcing layer include glass fiber yarns.

68. The process according to claim 65, wherein the linear reinforcing elements of the second reinforcing layer include rods or bars of extruded fibers of glass and resin.

69. The process according to claim 68, wherein each of the linear rods or bars has a diameter of 2 to 2.5 mm.

70. The process according to claim 68, wherein each of the linear rods or bars comprises 68% glass and 32% resin, the percentages being expressed by weight.

71. The process according to claim 67, wherein the grooves or recesses have a depth dimension of 3 to 4 mm and the glass fiber yarns comprise 4800 TEX (19.6 g/m) glass threads.

72. The process according to claim 71, wherein the glass threads are non-twisted and have a linear dilatation coefficient of  $8 \text{ to } 9 \times 10^{-6}$ .

73. The process according to claim 71, wherein the glass threads are cylindrical, have a circular cross-section with a diameter between 2 to 2.5 mm, and have a linear dilatation coefficient of  $7.5 \times 10^{-6}$ .